

WHAT IS CLAIMED IS:

1. A solid-state laser device, which comprises a first resonator for projecting a first laser beam and a second resonator for projecting a second laser beam, wherein said first resonator and said second resonator commonly share a part of an optical axis and an output mirror, and which comprises a first light emitting unit for said first resonator, a second light emitting unit for said second resonator, a monitoring means for splitting and monitoring a part of said first laser beam and for splitting and monitoring a part of said second laser beam among the laser beams projected from said output mirror, and a control unit for controlling at least one of said first light emitting unit and said second light emitting unit based on a detection result from said monitoring means.

2. A solid-state laser device according to claim 1, wherein said monitoring means comprises a first monitoring means for monitoring said first laser beam and a second monitoring means for monitoring said second laser beam, and said control unit can independently control said first light emitting unit and said second light emitting unit.

3. A solid-state laser device according to claim 2, wherein a wavelength of the first laser beam is different from a wavelength of the second laser beam.

4. A solid-state laser device according to claim 2, wherein a direction of polarization of the first laser beam is different from a direction of polarization of the second laser beam.

5. A solid-state laser device according to claim 2,

wherein said control unit controls one of said first light emitting unit and the second light emitting unit so that a short-time pulse with higher output peak value can be issued and said control unit controls the other of said light emitting units to continuous or long-time pulse with lower output peak value.